

DESCRIPTION

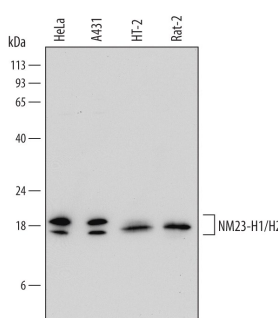
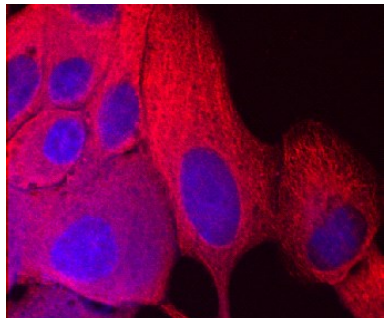
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat NM23-H1/H2 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human NM23-H1 Met1-Glu152 Accession # P15531
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.2 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human, Mouse, and Rat NM23-H1/H2 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, A431 human epithelial carcinoma cell line, HT-2 mouse T cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF Membrane was probed with 0.2 µg/mL of Human/Mouse/Rat NM23-H1/H2 Polyclonal Antibody (Catalog # AF6019) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for NM23-H1/H2 at approximately 17-20 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>NM23-H1/H2 in MCF-7 Human Cell Line. NM23-H1/H2 was detected in immersion fixed MCF-7 human breast cancer cell line using Sheep Anti-Human/Mouse/Rat NM23-H1/H2 Polyclonal Antibody (Catalog # AF6019) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

NM23-H1 (Non-metastatic protein 23 homolog 1; also NDKA) is a 17-20 kDa member of the NDK family of enzymes. NM23-H1 is ubiquitous in expression, and performs multiple functions. It forms disulfide-linked homo-hexamers, and hetero-hexamers with NM23-H2, generating a nucleoside diphosphate kinase that catalyzes a phosphoryl transfer from ATP to a nucleoside diphosphate. It also shows histidine protein and Ser/Thr protein kinase activity, and forms covalent linkages with molecules diverse as p53 and STRAP. It is found both intracellularly, and in blood at ng/mL concentrations. Human NM23-H1 is 152 amino acids (aa) in length, contains one NDP kinase domain (aa 5-134) and shows acetylation at Ala2 and Lys56, plus phosphorylation at Tyr52, Thr94, Ser122 and Ser125. Human NM23-H1 shares 89% aa identity with human 17-18 kDa NM23-H2 (Non-metastatic protein 23 homolog 2; also NDKB), and 94% aa identity with mouse NM23-H1. A second H1 isoform named NM23-H1B with 25 additional aa at the N-terminus has also been described.